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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,985	11/30/2001	Iwao Fujii	15162/04040	5755

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SIDLEY AUSTIN BROWN & WOOD LLP
717 NORTH HARWOOD
SUITE 3400
DALLAS, TX 75201

EXAMINER

MARIAM, DANIEL G

ART UNIT PAPER NUMBER

2621

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,985	FUJII ET AL.	
	Examiner	Art Unit	
	DANIEL G MARIAM	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03/28/2002</u> . | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hämäläinen (6,775,397 B1).

With regard to claim 1, Hämäläinen discloses an image recognition apparatus (See for example, Figure 1) comprising: a reference image memory for storing one or more reference image, i.e., previously created user profile that is stored in a memory of computer 20, in Fig. 1, used for image recognition (See for example, col. 4, lines 34-35); a similarity detector for comparing an input image, to be recognized, with the one or more reference image stored in the reference image memory, and for determining whether or not a reference image is similar, i.e., match, to the input image, i.e., 3D model and facial texture (See for example, col. 4, lines 30-30-39); a comparison controller that, when the similarity, i.e., match, detector determines that a similar reference image that is similar to the input image is present, i.e., existence of a match, compares (this feature is considered inherent because some type of comparison is required to determine differences or similarities between the inputted data and the stored data) the information on a time of photo taking of the input image, i.e., the image currently processed which may require adjustments for changes in the user's facial shape due to aging or gaining weight, and a time of photo taking of the similar reference image, i.e., the user profile previously

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stored without the above-identified changes, and a renewal controller for renewing, i.e., updating, the similar reference image stored in the reference image memory based on the input image, when the comparison controller determines that the input image is newer than the similar reference image (See col. 4, lines 42-60).

With regard to claim 2, an image recognition apparatus according to claim 1, further comprising a photo taking time information receiver that receives input of the information on the time of photo taking of the input image and adds the information to the input image (See for example, items 32 and 36, in Fig. 6).

With regard to claim 3, an image recognition apparatus according to claim 1, further comprising an extractor (computer 20) for extracting an image of a face of a person from an image, said extractor storing the image of the face in the reference image memory, and wherein the similarity detector is adapted to compare the image of the face extracted from the input image by the extractor with images of faces stored in the reference image memory, and to determine whether or not images being compared are similar to each other (See for example, col. 4, lines 15-41).

With regard to claim 4, an image recognition apparatus according to claim 1, wherein the similarity detector is adapted to compare the input image successively with each of a plurality of reference images stored in the reference image memory (See col. 4, lines 30-41; and col. 5, lines 22-24).

With regard to claim 5, an image recognition apparatus according to claim 1, wherein said similarity detector is adapted to compare a feature, i.e., facial texture, for example, obtained

from the input image with a feature obtained from a reference image and to determine whether or not the input image and the reference image are similar to each other (See items 36 and 38, in Fig. 6).

With regard to claim 6, claim 1 encompasses the limitation of this claim. Therefore, claim 6 is rejected the same as claim 1, and argument analogous to that presented above for claim 1 is applicable to claim 6. Claim 6 distinguishes from claim 1 only in that it recites an input image receiver for receiving, in real time, an input image to be recognized (See computer 20, in Fig. 1; and col. 4, lines 15-17).

Claim 7 is rejected the same as claim 4. Thus, argument analogous to that presented above for claim 4 is applicable to claim 7.

Claim 8 is rejected the same as claim 3. Thus, argument analogous to that presented above for claim 3 is applicable to claim 8.

With regard to claim 9, an image recognition apparatus according to claim 8, wherein, when images, i.e., first and second images shown in Fig. 3, of a plurality of faces are extracted from the input image by the extractor, said similarity detector compares the extracted image of each one of said plurality of faces successively with the reference images stored in the reference image memory (See col. 4, lines 30-41; and col. 5, lines 22-24).

Claim 10 is rejected the same as claim 5. Thus, argument analogous to that presented above for claim 5 is applicable to claim 10.

Claims 11 and 12 are rejected the same as claims 1 and 4 respectively except claims 11 and 12 are directed to method claims. Thus, arguments similar to those presented above for claims 1 and 4 are respectively applicable to claims 11 and 12.

Claim 13 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is applicable to claim 13. Hämäläinen further discloses a computer-readable recording medium having recorded thereon a program for performing the steps discussed in claim 11 (See for example, Fig. 2).

With regard to claim 14, claim 1 encompasses the limitation of this claim. Thus, argument analogous to that presented above for claim 1 is applicable to claim 14.

With regard to claim 15, an image recognition apparatus according to claim 14 wherein, said renewal controller is adapted to renew said reference image based on said input image when said time associated with said input image is after said time associated with said reference image (which is the case from the language of Hämäläinen described at col. 4, lines 34-35, wherein the stored profile of the user information is a previously created profile meaning before the current image which suppose to be compared against the previously created user profile for recognition).

With regard to claim 16, an image recognition apparatus according to claim 14 wherein, said similarity detector is adapted to compare a different reference image with said input image, when said similarity detector determines that said input image is not similar to said reference image (See col. 4, lines 39-60).

17. An image recognition apparatus according to claim 14, wherein when said similarity detector determines that said reference image is not similar to said input image, said reference image

memory is adapted to store said input image and information relating to said input image (which reads on col. 4, lines 55-60).

With regard to claim 18, an image recognition apparatus according to claim 17, wherein when said information relating to said input image matches information relating to said reference image, said renewal controller is adapted to renew said reference image based on said input image when said time comparison controller determines that said time associated with said input image is after a time associated with said reference image.

Claim 19 is rejected the same as claim 1 except claim 19 is a method claim. Thus, argument analogous to that presented above for claim 1 is applicable to claim 19.

With regard to claim 20, a method for recognizing an image according to claim 19, wherein said step of renewing the similar reference image is performed when the time associated with the input image is after the time associated with the similar reference image (which is the case from the language of Hämäläinen described at col. 4, lines 34-35, wherein the stored profile of the user information is a previously created profile meaning before the current image which suppose to be compared against the previously created user profile for recognition).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 4461028, 4468807, 5012522, 5412738, 5757287, 6018739, 6108033, 6111517, 6430306, 6687386, and Re.36041.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

November 29, 2004